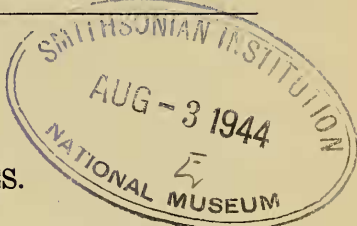


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

GENERAL NOTES.

THE CAVE SALAMANDER IN VIRGINIA.

The range of the Cave Salamander, *Eurycea lucifuga* (Rafinesque), as stated by both Stejneger and Barbour (1943, Checklist of North American Amphibians and Reptiles, 5th Edition, p. 33) and Bishop (1943, Handbook of Salamanders, p. 431) does not include Virginia, despite the fact that Bishop's distributional map (loc. cit., p. 432) for the species indicates that it occurs in the southwestern corner of the state. The species has, however, been reported from Giles County, Virginia by Dunn (1936, List of Virginia amphibians and reptiles, Haverford, Pa., mimeographed, p. 2).

The following records for *E. lucifuga* in Virginia, accumulated as a result of the cave collecting activities of The National Speleological Society and augmented by records of specimens in various museum collections, are thus presented to more definitely establish this cave-inhabiting salamander in the state as well as to more accurately delineate its present distribution. The sources of these records, and the abbreviations used to designate them, are as follows: National Speleological Society (NSS), Virginia Polytechnic Institute (VPI), United States National Museum (USNM), Carnegie Museum (CM), Academy of Natural Sciences of Philadelphia (ANSP), and the personal collection of the author (JAF). For making these records available, the writer extends his thanks to the following persons: Dr. Doris M. Cochran, Mr. M. Graham Netting, Dr. Helen T. Gaige, Dr. Arnold Grobman, and Mr. Charles E. Mohr. Especial thanks are due Dr. Herbert W. Jackson of the Biology Department, Virginia Polytechnic Institute, who generously contributed his records for this species from caves in southwestern Virginia as a basis for this paper. The records follow:

TAZEWELL COUNTY:

Cassel Cave, Burke's Garden - 2 collected July 15, 1941 (ANSP Nos. 24744-45).

GILES COUNTY:

Cave, Sinking Creek, nr. Newport—1 collected July, 1935 (USNM No. 99106). (Specimen reported by Dunn, loc. cit.)

Cave, nr. Newport—1 collected 1938, alt. 2000 ft. (CM No. 13989).

New River Cave, Goodwin's Ferry—1 collected Feb. 14, 1943 (VPI).

Lucas Cave, Newport—2 collected April 11, 1943 (VPI).

Canoe Cave, Newport—1 collected April 15, 1943 (VPI).

Tony's Cave, Newport—1 collected May 9, 1943 (VPI).

Smoke Hole Cave, Newport—2 collected May 9, 1943 (VPI).

CRAIG COUNTY:

Two-mile Cave, nr. Looney, Meadow Creek—1 collected May 30, 1943 (VPI)

Fish Hatchery Cave, nr. Looney, Meadow Creek—4 collected May 30, 1943 (VPI); 2 collected Oct. 31, 1943 (JAF No. 812).

ROCKBRIDGE COUNTY:

Buck Hill Cave, Natural Bridge—2 collected June 6, 1943 (NSS); 5 collected Oct. 30, 1943 (JAF No. 813).

Physiographically these records are representative of the Valley and Ridge Province of the Appalachian Highlands. Elsewhere the range of *E. lucifuga* also includes the Appalachian Plateaus Province of the Appalachian Highlands, the Interior Low Plateaus and Central Lowland of the Interior Plains, and the Ozark Plateaus of the Interior Highlands. Of these other provinces the Appalachian Plateaus Province (Kanawha section) occurs in Virginia. There are apparently no records for *E. lucifuga* from this province in Virginia.

So far as drainage is concerned, those records from Tazewell and Giles Counties are in the New River drainage, while those from Craig and Rockbridge Counties are in the James River drainage. The New River is tributary to the Mississippi River by way of the Kanawha and Ohio Rivers. The James River, on the other hand, flows east into the Atlantic Ocean. In this latter connection, the specimens from Craig County were collected in caves along Meadow Creek, a headwater tributary of the James River near the drainage divide between it and the New River. The specimens from Rockbridge County, also in the James River basin, extend the range of this salamander in Virginia considerably north and east. Moreover, the specimens from both Craig and Rockbridge Counties represent the only records for this species throughout its entire range from a stream flowing east into the Atlantic Ocean. Significantly, however, the James River, although flowing east, arises west of the Blue Ridge and follows a course across it.

In view of the occurrence of *E. lucifuga* in the James River drainage, future collecting, particularly in caves and cavernicolous habitats, should help to determine the extent to which this salamander is established in this watershed, as well as to indicate whether or not it occurs east of Natural Bridge.

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